

REMARKS

Claims 3 and 5 are all of the pending claims. Claims 1, 2, and 4 are canceled without prejudice or disclaimer. Claims 3 and 5 are all the claims pending in the present application.

Applicant cancels claims 1, 2, and 4 without prejudice or disclaimer. Therefore, Applicant's remarks are directed to claims 3 and 5.

Interview

Applicant's representative would like to thank the Examiner for courtesies extended in the personal interview of October 20, 2003. In the interview, claims 3 and 5 were discussed. The cited references (Richardson, Birchler, Saito, and Davis) were discussed.

Applicant's representative argued that none of the cited references discloses or suggests an apparatus for waterproofing a terminal connecting portion of a sheathed wire, in which a terminal fitting and a bared conductor of the sheathed wire are connected with each other, "wherein a curvature of the dome-shaped ceiling face is made coincident with a curvature of an upper face of the terminal fitting so that a thickness of the molten resin between the ceiling face and the upper face of the terminal fitting is substantially identical", as recited in claim 3.

However, the Examiner took the position that "the shape of the mold would not render the apparatus claims patentable over the prior art", as set forth in the Interview Summary of October 20, 2003.

Claim Rejections Under 35 U.S.C. § 102

In the present Office Action, the Examiner maintains and makes final the rejections of claims 1-5 of the present Office Action. In particular, the Examiner rejects claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by either Richardson (U.S. Patent No. 4,204,896), Birchler et al. (U.S. Patent No. 4,043,027), or Saito (U.S. Patent No. 5,620,711). Additionally, the Examiner rejects claims 1-5 under 35 U.S.C. § 102(b) as being anticipated by Davis et al. (*Applied Plastic Product Design*, Prentice-Hall 1946, page 74).

Applicant has amended independent claim 3 to that it recites an apparatus for providing a waterproof terminal connecting portion including the terminal fitting including an upper face having a curvature, the upper mold, and the lower mold. In view of this amendment, Applicant respectfully requests the Examiner to withdraw the rejection at least because none of the references cited teaches or suggests all of the claim recitations.

For example, he claimed invention specifically recites that a curvature of the dome-shaped ceiling face of the upper mold is made coincident with a curvature of an upper face of the terminal fitting so that a thickness of the molten resin between the ceiling face and the upper face of the terminal fitting is substantially identical. This allows the contraction coefficient of the thermal expansivity of the molded resin to be substantially identical for all over the body of the molded terminal connecting portion so as to provide reliable waterproofing properties (see page 8, lines 6-9, of the specification).

Thus, Applicant submits that claim 3 specifically defines the structural features of the apparatus. Particularly, the claimed invention defines the curvature of the dome-shaped ceiling

face in terms of the curvature of the upper face of the terminal fitting to maintain identical thickness of the molten resin between the dome-shaped ceiling face and the upper face of the terminal fitting, as well as to maintain identical contraction coefficient of the thermal expansivity of the molded resin. In other words, this recitation serves to further limit the novel shape of the dome-shaped ceiling face of the claimed invention that results in the advantages described by Applicant in the specification.

Additionally, claim 5 further defines the structure of the dome-shaped ceiling face of the upper mold as having at least two radii of curvature in an identical cross-sectional plane, in accordance with a shape of an outer face of the terminal fitting.

In comparison, none of the cited references discloses an apparatus for waterproofing that meets the structural limitations of claims 3 and 5. That is, none of the cited references anticipates claims 3 and 5.

To anticipate a claim, the reference must disclose each and every element of the claim, either expressly or inherently, in as complete detail as recited in the claim. See MPEP § 2131.

Claim 3 is rejected under 35 U.S.C. § 102(b) as being anticipated by Richardson. However, the grounds of rejection do not identify the disclosure in Richardson, nor is Applicant aware of such a disclosure either expressly or inherently, that corresponds to the features of claim 3. Instead, Richardson discloses merely that the mold cavity may contain joints such as “straight-through” cable joint, as shown in Figures 1-6, or a “star-joint”, as shown in Figures 7-9 (see column 2, lines 10-17; column 4, lines 10-14). However, the upper mold of Richardson does not necessarily have a curvature that is coincident with a curvature of an outer face of the

terminal fitting, as claimed. That is, Richardson does not disclose, expressly or inherently, that the curvature of the upper face of the upper mold is coincident with a curvature of an outer face of the terminal fitting. Thus, Richardson does not anticipate claim 3.

Claim 3 also is rejected under 35 U.S.C. § 102(b) as being anticipated by Birchler. In the Response to Arguments, the Examiner considers the curved faces of Birchler, as shown in Figure 5, to be curved vertical faces. As such, the grounds of rejection states that Birchler discloses all of the limitations of claim 3. However, with respect to claim 3, Applicant respectfully submits that the grounds of rejection do not establish, or mention, the manner in which Birchler discloses the structural limitation of claim 3 in which the ceiling face of the upper mold has a curvature that is coincident with a curvature of an outer face of the terminal fitting. Instead, the Examiner only refers to the surface of the resin (i.e., the product 110) formed by the mold (see Office Action page 2, numbered paragraph 4). Therefore, Applicant respectfully submits that claim 3 also is not anticipated by Birchler.

Additionally, claim 3 is rejected under 35 U.S.C. § 102(b) as being anticipated by Saito. The grounds of rejection state that Saito discloses that the ceiling face of the upper mold has a curvature selected so as to be coincident with the curvature with an outer face of the terminal fitting, as allegedly shown by reference numeral 39 and described at column 4, lines 4-10. However, Saito merely states that a packing material 23 is supplied through the injecting port 13 and is spread between the wires over the tapered surface 15, and reaches the space 37. Additionally, Saito states that “a drum-like portion 39 is formed at the central portion of the wire bundle”. See column 4, lines 4-10. However, the packing material 23 is comparable (at best) to

the resin used in the mold, not the terminal fitting. Therefore, Saito does not disclose that the ceiling face of the upper mold has a curvature that is coincident with the curvature of an outer face of the terminal fitting as recited in claim 3. Instead, the packing material 23 merely fills the mold. Therefore, claim 3 also is not anticipated by Saito.

Furthermore, claims 3 and 5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Davis. The grounds of rejection state that Davis discloses a “dome-shaped face corresponding with the forming product” (see Office Action, page 3, numbered paragraph 6; emphasis added). However, the grounds of rejection do not mention how Davis discloses that the upper mold has a curvature that is coincident with the curvature of an outer face of the terminal fitting, as recited in claim 3. In fact, Davis merely discloses a cross-section of a plastic mold and does not even mention either an apparatus for waterproofing a terminal connection, or for that matter, a terminal fitting.

Moreover, the grounds of rejection do not identify how Davis discloses that the dome-shaped ceiling face comprises at least two radii of curvature in an identical cross-sectional plane, in accordance with a shape of an outer face of the terminal fitting, as recited in claim 5. Thus, Davis does not anticipate claims 3 or 5.

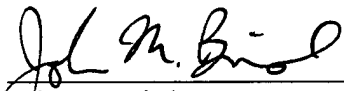
Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.116
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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